

Applicants: Brehm, et al.
Serial No.: 10/599,066
Docket No.: 1093-162 PCT/US/RCE II
Response to Final Office Action Mailed February 14, 2011
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REMARKS

This submission is in response to the final Office Action mailed February 14, 2011. Claims 1-7, 9-16, 18 and 20-22 are currently pending in this application. By this response, Applicants have amended claims 1, 11, 12 and 14 and cancelled claims 9 and 10. The amendments to claim 1 incorporates the limitations of claims 9 and 10 (in effect converting claim 10 to independent form) with claims 9 and 10 thereby being cancelled. Also, the amendments to claim 11 merely convert claim 11 to independent form, thereby incorporating the elements of claims 1 and 9. The amendment to claim 12 merely changes the dependency to claim 1 since claim 10 has been cancelled. Additionally, the amendment to claim 14 incorporates the limitations of claims 9, 10 and 11 in order to parallel the amendments to claims 1 and 11 noted above. Accordingly, no new subject matter has been added by this response. Applicants respond specifically below to the issues raised in the subject Office Action and respectfully request reconsideration.

Claim Rejections Under 35 U.S.C. §103

Claims 1-16, 18 and 20-22 are rejected under 35 U.S.C. §103(a) as being unpatentable over European Patent No. 1,398,174 to **Moreau** in view of U.S. Published Patent Application 2005/0040641 to **Cote** et al. Applicants note that claim 8 which was previously cancelled was included in this claim rejection inadvertently. Nonetheless, in view of the amendments noted above, Applicants respectfully traverse this rejection.

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At the bottom of page 5, the Office Action acknowledges that PET is not suitable to be printed, scattered, sprinkled or sprayed. However, the Office Action goes on to argue that Cote discloses several other materials suitable for printing, e.g. polyester, polypropylene (PP) and polyethylene (PE). Thus, while such materials are mentioned in the Cote disclosure, it is important to differentiate how these new materials are prepared and used when making products. For example, films can be produced from polyester, PP or PE by means of extrusion, whereby these films contain virtually 100% pure polyester, PP, or PE. As those materials extrude very well, there is no need to add any auxiliary components, making products extruded from these materials a very high degree of purity. In contrast, it is well understood in the art that polyester, PP and PE cannot be printed in their pure form. In order to print, scatter, sprinkle or spray these materials as a lacquer, the materials need to be mixed with other components such as solvents, additives, catalysts and/or hardeners. However, the addition of these other components leads to a change of the physical properties of these lacquers, compared to their high purity film counterparts. Accordingly, polyester, PP or PE films have considerably different physical properties from polyester, PP or PE coatings made from a lacquer, in particular, their length expansion coefficient and/or their modulus of elasticity. Moreover, when comparing the physical properties of a film produced from 100% polyester, PE or PP versus a printed coating of these materials, it would show that their physical properties are considerably different and certainly outside the 10% range defined by the amended claims. In this way, the combination of Moreau and Cote would not arrive at a film layer and a printing coating which fall within these

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10% matching ranges of length expansion coefficient or modulus of elasticity as recited in the claims.

For the purpose of clarification and support, with regard to this issue, Applicants submit herewith two prior art documents demonstrating reasonable knowledge in the art regarding printing inks and/or paints and their composition. These documents are also listed on an Information Disclosure Statement filed herewith. In particular, the Ullmann's Encyclopedia of Industrial Chemistry volume 24 at pages 596-597 discloses how paints and coatings are made of numerous components comprising binders, resins, plasticizers, pigments, extenders and additives. This disclosure describes how paints, like any coating material, are made of numerous components, where the components "fulfill specific functions in the liquid paint and in the solid coating film" (p. 596, bottom of col. 1 -- Emphasis added). Also, it is the solvents, binders and pigments that account for most of the material in a coating like paint, with a small proportion of additives that produce marked effects, such as flow behavior. By mixing the base materials (polyester, PP or PE) with additives, the physical properties of the combined mixture will change accordingly. Thus, the physical properties of 100% pure polyester, PP or PE film material must be distinguished from a coating produced from a polyester, PP or PE paint which contains several other components, most notably the binder in addition to the base material.

Applicants Information Disclosure Statement further cites U.S. Patent No. 5,648,414 to Bier et al. as a further example of this distinction. Bier at column 6, lines 20-61 describe an example of a screen printing ink, where the ink comprises 12 parts by weight of pigments, fillers and auxiliaries, 30 parts by weight of the base material (polycarbonate) and 58 parts by weight of

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a solvent. Given that the solvent will evaporate, the remaining polycarbonate film will make-up 30 parts by weight, with 12 parts by weight of pigments, fillers, and auxiliaries, which means the film only has 60% of the properties of the base material. The resulting film will comprise 12/30 (40%) pigments, fillers and auxiliaries. From this, it should be clear that the resulting physical properties of this printed PC coating will be considerably different from a film coating 100% pure PC.

Applicants by now defining in the independent claims, namely claims 1, 11 and 14, that the length expansion coefficient and/or the modulus of elasticity between the film element and the sealing layer do not differ by more than 10%. Such a small margin of difference can simply not be obtained with substantial additives, such as 40% fillers and auxiliaries that alter the base material's elasticity and expansion coefficient. Accordingly, the combination of Moreau and Cote fail to reasonably disclose all the elements of the claimed invention, thus Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. §103 of all the claims presented.

Conclusion

Applicants submit that the amended claims, particularly independent Claims 1, 11 and 14, are patentable over the prior art. What is more, dependent Claims 2-7, 12, 13, 15, 16, 18 and 20-22, which ultimately depend from Claims 1 and 14, are similarly patentable over the art of

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record by virtue of their dependence. Also, Applicants submit that Claims 2-7, 12, 13, 15, 16, 18 and 20-22 define patentable subject matter in their own right.

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and allowance of the claims presented. If the Examiner has any questions or suggestions to expedite allowance of this application, he is cordially invited to contact Applicants' attorney at the telephone number provided.

Respectfully submitted,

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